**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

| | | |
|---|---|---|
| JOE ANDREW SALAZAR, | § | |
| | § | |
| Plaintiff, | § | |
| | § | |
| v. | § | No. 2:16-CV-01096-JRG-RSP |
| | § | |
| HTC CORPORATION et al., | § | |
| | § | |
| Defendants. | § | |

## CLAIM CONSTRUCTION OPINION AND ORDER

Before the Court is the opening claim construction brief of Plaintiff Joe Andrew Salazar [Dkt. # 85], the response of Defendant HTC Corporation [Dkt. # 91], the reply of Plaintiff [Dkt. # 94], and the sur-reply of Defendant [Dkt. # 97]. The Court held a claim construction hearing on October 18, 2017. Having considered the arguments and evidence presented by the parties at the hearing and in their claim construction briefing, the Court issues this Claim Construction Opinion and Order.

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## I.  BACKGROUND

Plaintiff brings suit alleging infringement of U.S. Patent 5,802,467 by Defendant. The application leading to the '467 Patent was filed on September 28, 1995 and issued on September 1, 1998. The '467 Patent is entitled "Wireless and Wired Communications, Command, Control and Sensing System for Sound and/or Data Transmission and Reception."

In general, the '467 Patent is directed to a handset and base station for communicating with a plurality of external devices. Broadly, the Abstract of the '467 Patent identifies that invention as:

> [a]n interactive microprocessor based wireless communication device includes sound and data transceivers, signal detection and coupling devices, signal conversion device, voice recording, playback and storage device, voice activated device, display device, touch screen or similar device, sensors, frequency generation device, sound detection and reproduction devices and power source to concurrently perform generalized two way wireless communications, command, control and sensing functions utilizing radio and infra-red frequency communication links. A microprocessor receives signals from the touch screen and generates a digital data, command/or control signal for transmission to external devices such as home appliances and remote sensors. The microprocessor also responds to voice signal commands received via microphone and a voice processor. The microprocessor uses this signal to generate data, command/or control signals for transmission to external devices such as telephone, paging and intercom systems. Sound signals may be stored in a voice recorder and playback IC for subsequent message processing and coupling to a transceiver and/or a speaker. Telephone ringer signals are generated by the microprocessor and are coupled to a ringer for audio output. In response to certain commands, the wireless communication device establishes a communication link with external devices using radio frequency or infra-red frequency transmission and/or reception. Sensor signals are created by sensors that can detect physical differential changes and that can convert the changes into measurements. These signals are coupled to the microprocessor for further processing, display and/or transmission.

'467 Patent abst. And as a representative example, Claim 10 recites:

> 10. A handset and a base station employed in a communications, command, control and sensing system for communicating with a plurality of external devices, said handset and base station each

comprising:

a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of communication protocols for transmission to said external devices, each protocol containing a plurality of control signals used to interface with an external device, wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;

a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets;

a user interface coupled to said microprocessor for sending a plurality of signals corresponding to user selections to said microprocessor, and displaying a plurality or menu selections available for user's choice, said microprocessor generating a communication protocol in response to said user selections;

a radio frequency transceiver coupled to said microprocessor fro transmitting to said external devices and receiving from said external devices, radio frequency signals at variable frequencies within a predetermined frequency range and in accordance with said communication protocols;

an infra-red frequency transceiver coupled to said microprocessor for transmitting to said external devices and receiving from said external devices infra-red frequency signals in accordance with said communications protocols;

a selector controlled by said microprocessor for enabling said radio frequency transceiver and said infra-red frequency transceiver, to transmit a desired command code set generated by said microprocessor via either radio frequency signals and infra-red signals as desired, and to receive a signal

from any one of said external devices via either radio fre-
quency signals and infra-red signals; and

a data detector coupled to said selector for receiving signals
transmitted from each one of said external devices, said data
detector providing control signals received from said exter-
nal devices to said microprocessor.

## II.     LEGAL PRINCIPLES

This Court's claim construction analysis is guided by the Federal Circuit's decision in *Phil-*

*lips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court reiterated

that "the claims of a patent define the invention to which the patentee is entitled the right to ex-

clude." *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.,*

*Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "The construction that stays true to the claim language

and most naturally aligns with the patent's description of the invention will be, in the end, the

correct construction." *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d

1243, 1250 (Fed. Cir. 1998)).

In claim construction, patent claims are generally given their ordinary and customary

meaning, which "is the meaning that the term would have to a person of ordinary skill in the art in

question at the time of the invention, i.e., as of the effective filing date of the patent application."

*Id.* at 1312–13. This principle of patent law flows naturally from the recognition that inventors are

usually persons who are skilled in the field of the invention and that patents are addressed to, and

intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that "the person of ordinary

skill in the art is deemed to read the claim term not only in the context of the particular claim in

which the disputed term appears, but in the context of the entire patent, including the specifica-

tion." *Id.* The written description set forth in the specification, for example, "may act as a sort of

dictionary, which explains the invention and may define terms used in the claims." *Markman*, 52 F.3d at 979. Thus, as the *Phillips* court emphasized, the specification is "the primary basis for construing the claims." *Phillips*, 415 F.3d at 1314–17. However, it is the claims, not the specification, which set forth the limits of the patentee's invention. Otherwise, "there would be no need for claims." *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc).

The prosecution history also plays an important role in claim interpretation as intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Phillips*, 415 F.3d at 1314–17; *see also Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that "a patentee's statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation"). In this sense, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (PTO) understood the patent. *Id.* at 1317. Because the prosecution history, however, "represents an ongoing negotiation between the PTO and the applicant," it may sometimes lack the clarity of the specification and thus be less useful in claim construction. *Id.*

Courts are also permitted to rely on extrinsic evidence, such as "expert and inventor testimony, dictionaries, and learned treatises," *id.* (quoting *Markman*, 52 F.3d at 980), but *Phillips* rejected any claim construction approach that sacrifices the intrinsic record in favor of extrinsic evidence. *Id.* at 1319. Instead, the court assigned extrinsic evidence, such as dictionaries, a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula or particular sequence of steps. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of

the patent grant. "In cases where . . . subsidiary facts are in dispute, courts will need to make subsidiary factual findings about [the] extrinsic evidence. These are the 'evidentiary underpinnings' of claim construction [discussed] in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

The Supreme Court of the United States has "read [35 U.S.C.] § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus,* 134 S. Ct. 2120.

A patent claim may be expressed using functional language. *See* 35 U.S.C. § 112(f) (formerly 35 U.S.C. § 112, ¶ 6); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347–49 & n.3 (Fed. Cir. 2015) (en banc in relevant portion). Where a claim limitation is expressed in means-plus-function language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112(f). *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, § 112(f) mandates that "such a claim limitation be construed to cover the corresponding structure . . . described in the specification and equivalents thereof." *Id.* (citing 35 U.S.C. § 112(f)).

"It is well settled that a claim limitation that actually uses the word 'means' invokes a rebuttable presumption that § 112, ¶ 6 applies. In contrast, a claim term that does not use 'means' will trigger the rebuttable presumption that § 112, ¶ 6 does not apply." *Apex Inc. v. Raritan Comp., Inc.*, 325 F.3d 1364, 1371 (Fed. Cir. 2003) (citations omitted). The Federal Circuit elaborated that

"[w]hen a claim term lacks the word 'means,' the presumption can be overcome and § 112, ¶ 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Williamson*, 792 F.3d at 1349 (quotations omitted). "The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id.*

When it applies, § 112, ¶ 6 limits the scope of the functional term "to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof." *Williamson*, 792 F.3d at 1347. Construing a means-plus-function limitation involves multiple steps. "The first step . . . is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). "[T]he next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* The focus of the "corresponding structure" inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.* The corresponding structure "must include all structure that actually performs the recited function." *Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005). However, § 112 does not permit "incorporation of structure from the written description beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999).

## III.   CONSTRUCTION OF AGREED TERMS

The parties have agreed to the following meanings for the following terms. *See, e.g.*, Dkt.

No. 99-1 (Joint Claim Construction Chart.)

| TERM | AGREED CONSTRUCTION |
| --- | --- |
| communications, command, control and sensing system | plain and ordinary meaning |
| control signals | plain and ordinary meaning |

Accordingly, the Court **ADOPTS** the constructions agreed to by the parties as listed above.

## IV.   CONSTRUCTION OF DISPUTED TERMS

The parties' positions and the Court's analysis as to the disputed terms are presented below.

### A.   "base station" (claim 10 and various dependent claims)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
| --- | --- |
| **Ordinary meaning**. The handset and the base station have similar components and function in substantially the same manner. The base station may have additional features, for example: it couples a frequency modulated signal to alternating current (AC) power line; it may be powered by an alternative alternating current (AC) signal and battery power sources; it may provide battery charging for the handset, and it may be coupled to public or private telephone lines. | A device separate from the handset that is structured to transmit signals to and receive signals from the handset, has a telephone line interface that can be used to couple the system to a telephone line, has an AC line FM coupler that can be used to couple FM signals to and from the AC power line and an AC power supply that can be used to provide AC power for operating the base station and charging the handset battery. |

#### (1) The Parties' Positions

Plaintiff argues that the plain and ordinary meaning of this term is appropriate. *See, e.g.*,

Pl.'s Opening Br. [Dkt. # 85] at 5. Plaintiff argues the plain language of the specification provides

an unequivocal definition of the term, which is similar to that proposed by Plaintiff. *Id.* Plaintiff

argues that the specification contradicts Defendant's proposed construction. *Id.* at 5–6.

Defendant argues Plaintiff's construction ignores language in the specification that clarifies the meaning of additional features of the base station as opposed to the handset. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 6. Defendant argues that a base station is different from a handset, and its construction shows that the base station has structure that enables use of specific additional functionality. *Id.* at 7.

Plaintiff replies that Defendant's construction is contradicted by claim differentiation and figures in the specification and imports limitations unnecessarily from the specification. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 1–3. Plaintiff argues the patent does not discriminate between the components and functionality of the handset or base station, and that the base station and handset have similar components and function in substantially the same manner. *Id.* at 2–3.

Defendant counters that the claims require two different devices. *See, e.g.*, Def.'s Sur-Reply [Dkt. # 97] at 1. Defendant argues the specification identifies specific structures in the base station that are not present in the handset. *Id.* Defendant argues the Court should clarify that the base station and handset are two different devices and identify the differences explicitly required by the specification. *Id.* at 1–2.

#### (2) Analysis

The Claims

The disputed "base station" term appears in independent claim 10 and its dependent claims. The preamble of claim 10 is reproduced below in relevant part, as well as various dependent claims:

> [claim 10] A **handset** and a **base station** employed in a communications, command, control and sensing system for communicating with a plurality of external devices, said **handset** and **base station** each comprising

> [claim 12] The communication, command, control and sensing system of claim 10,

wherein said **base station** is coupled to at least one telephone line via a telephone line interface.

[claim 13] The communications, command, control and sensing system of claim 10 wherein said **base station** is adapted to couple frequency modulated signals to an alternating current power line.

[claim 14] The communications, command, control and sensing system of claim 10 wherein said **base station** further comprises a backup battery power source.

[claim 18] The communications, command, control and sensing system of claim 17, further comprising an internal and an external intercom device, so as to provide voice and data communications among said **base station**, said **handset** and external intercom devices.

[claim 23] The communications command, control and sensing system of claim 10, further comprising at least one sensor located on either of said **handset** and **base station**, said sensor coupled to said microprocessor for detecting and measuring physical phenomena.

(emphasis added). Independent claim 10 requires *both* a handset and a base station and requires *each* of the handset and base station to have various limitations. Some of the dependent claims (e.g., claims 12–14) provide additional limitations for the base station. Despite these limitations, there is nothing in the claim language that provides a special meaning for the "handset" or "base station" terms.

<div align="center">The Specification</div>

The specification has repeated references to a "handset" and "base station." FIGS. 1a and 1b are block diagrams of the system comprised of a "handset and base station in accordance with the present invention." '467 Patent at 6:1–9. FIG. 1a of the '467 Patent (below) provides a picture of the handset and base station. Likewise, FIG. 1b of the patent (below) illustrates a block diagram of the system showing communication between the handset, base station, and external appliances and/or apparatuses.

FIG. 1a
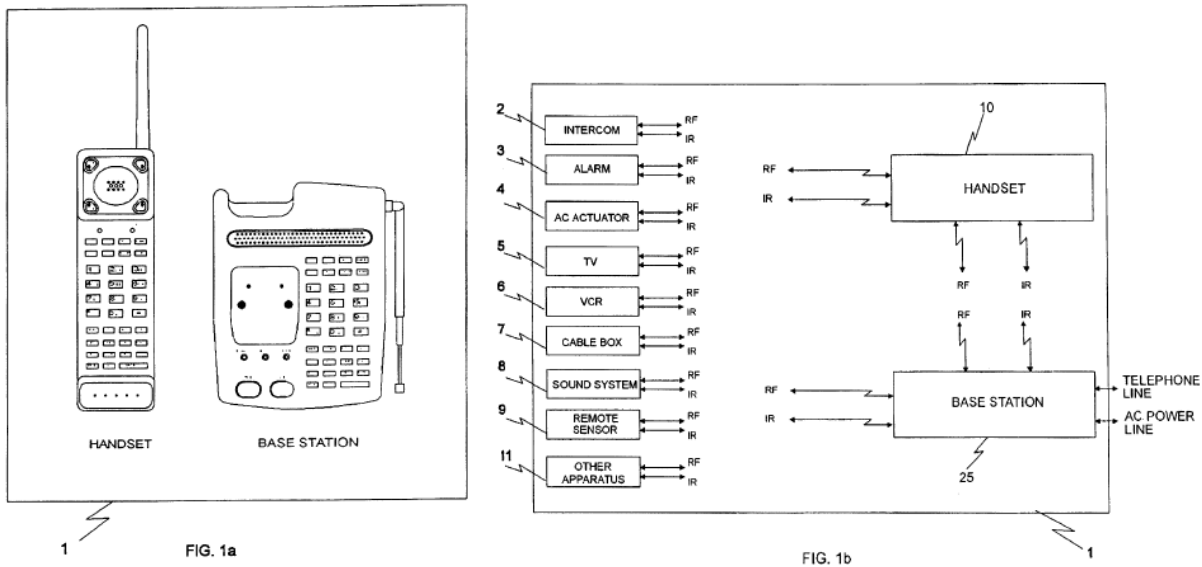
FIG. 1b

The '467 Patent discusses the handset and base station illustrated in FIG. 1b:

> As illustrated in FIG. 1b, external appliances and/or apparatuses may include an intercom 2, an alarm 3, an alternating current (AC) actuator 4, a TV 5, a VCR 6, a cable box 7, a sound system 8, a remote sensor 9, or any other RF/IR apparatus 11. As shown, **handset 10** may communicate directly to any of the external apparatuses or directly to a **base station 25**. Alternately, **base station 25** may communicate directly with any of the external apparatuses or **handset 10**. Further still, **handset 10** may communicate to an external apparatus through **base station 25**. Finally, **base station 25** may communicate through a telephone line and/or an alternating current (AC) signal power line to any other apparatus having the ability to communicate through same.

'467 Patent 6:39–51 (emphasis added). The Summary of the Invention section provides a summary

of the "handset" and "base station":

> In accordance with the present invention, a wireless and wired communications, command, control and sensing system, in the form of a remote **handset** or **base station**, or both, is provided. **Both the handset and the base station have similar components and function in substantially the same manner. The base station may have additional features,** for example: it couples a frequency modulated signal to alternating current (AC) power line; it may be powered by an alternative alternating current (AC) signal and battery power sources; it may provide battery charging for the **handset**, and it may be coupled to public or private telephone lines.

> Both the **handset** and the **base station** contain a touch screen or similar touch sensitive device that when touched in at least one specific outlined area, provide the means for externally interacting with their respective microprocessors. This interaction initiates the execution of a software instruction set.

'467 Patent at 2:66–3:14.

> The **base station** radio frequency transceiver further couples two way frequency modulated signals from and to alternating current (AC) power line for two way communication with other frequency modulation transceivers that are also coupled to alternating current (AC) power line.

> The **base station** further couples voice and data signals to public and/or private telephone network.

> The **base station** is further powered by direct current (DC) signal and an alternating current (AC) signal power source.

*Id.* at 4:34–42 (emphasis added). Numerous other references to the handset and base station are found within the specification.

The specification teaches that the handset and base station are separate devices. While the handset and base station have similar components and function in substantially the same manner, the base station may have additional features. The specification is consistent with the claims, in that the base station and handset have similar components and functions (*see* claim 10), but the base station may have additional features (*see, e.g.*, claims 12–14).

### Prosecution History

Neither party substantively relies on the prosecution history in support of their positions on this term.

### Conclusion

Overall, the Court finds the '467 Patent provides no special meaning to the term "handset" or "base station," and the patent's use of these terms is consistent with their ordinary meaning. The

specification is consistent with the claims. FIG. 1A provides simple picture descriptions of a "handset" and "base station," which descriptions are consistent with the plain meaning of these terms and the claims. FIGS. 1b and FIGS. 2–5 similarly provide block diagrams of a "handset" and "base station" consistent with their plain and ordinary meanings. While the '467 Patent does provide some specific limitations for the handset and base station in the claims, this does not change the plain and ordinary meaning of the base station and handset terms.

The Court rejects both Plaintiff's and Defendant's constructions. Both unnecessarily complicate the plain meaning of these terms and create ambiguity and confusion as to the meaning of these terms. For example, Plaintiff's construction fails to provide any inherent meaning to the "handset" and "base station" terms. Defendant's construction unnecessarily limits "base station" with additional structure found in the preferred embodiment of the specification and various dependent claims.

Instead, the Court finds that the "base station" and "handset" terms do not appear to have a meaning other than its plain and ordinary meaning. The Court, however, finds that a construction is helpful to eliminate the dispute between the parties and to give some meaning to the separate terms and devices "handset" and "base station."

On balance, the Court finds the "base station" and "handset" are different devices and have different meanings. Simply put, a "handset" is not a "base station." During the claim construction hearing, Plaintiff was unable to articulate any required difference in structure between the handset and base station and only argued there "may" be differences and added functionality to the base station. On the other hand, Defendant's construction goes too far in its inclusion of multiple limitations from the specification. The claims and specification are very clear that most of these additional structures are optional and are not a required part of the "base station." The Court is tasked

with determining what is the primary distinguishing feature between a handset and base station based on their ordinary meanings and the intrinsic record. The Court finds that—consistent with the specification's repeated characterization of the "present invention" and the plain meaning of the term "base station"—the "base station" term must require a telephone line interface. The Court rejects Plaintiff's arguments to the contrary. Regarding dependent claim 12, the Court notes that claim differentiation is not dispositive.

The Court hereby construes the term "base station" to mean "**a device separate from the handset that has a telephone line interface.**"

## B.   "microprocessor" (claim 1, 10, and 34)

| Disputed Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|---|
| a microprocessor for generating a plurality of control signals used to operate said system (claim 1)<br><br>said microprocessor creating a plurality of reprogrammable communication protocols / said microprocessor creating a plurality of communication protocols (claims 1, 34 / 10) | plain and ordinary meaning | A microprocessor configured to create a plurality of control signals used to operate the communications, command control and sensing system and to create all of the command code sets for [reprogrammable] communication protocols of each of the plurality of external devices with which the system is intended to communicate.<br><br>INVALID because is indefinite as construed under *IPXL Holdings* (invalid for claiming both apparatus and use) |

### (1) The Parties' Positions

Defendant argues the microprocessor must be actually programmed to perform all of the recited functional language. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 8–10. The claim language and

prosecution history, says Defendant, require more than just the "ability" to be programmed to per-form the recited function. *Id.* Moreover, Defendant argues the claim language of using "creating" and "recreating" creates confusion, and similar to the *IPXL Holdings*, renders the claim invalid. *Id.* at 10–13. Defendant also argues the "timing" of the acts (microprocessor creating and memory device recreating) are different. *Id.* at 12. Defendant argues the public is not given reasonable notice about when infringement occurs and is thus invalid as being indefinite. *Id.*

Plaintiff argues that the plain and ordinary meaning of this term is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 7. In its Reply, Plaintiff argues that Defendant's prosecution history statements are misleading and wrong. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 3–4. Plaintiff argues the patent discloses "capability" claims, and that the Notice of Allowance confirms the claims are "capability" claims and not use claims. *Id.* Plaintiff argues that there is no support in the intrinsic evidence to limit the claims as proposed by Defendant. *Id.*

Plaintiff also argues *IPXL Holdings* is not applicable because the claims only indicate a capability of the structure rather than actual use. *Id.* at 4–5. In particular, Plaintiff argues that the claims and specification of the patent make clear the microprocessor has the capability to create a plurality of reprogrammable communication protocols and recreate a desired command code set. *Id.* at 5. There is no "user activity" required. Further, the timing of the creating/recreating of the command code set has no bearing on infringement because infringement occurs upon creation of the system that is capable of performing the creating/recreating of the command code set and "when" that actual creating/recreating steps happens is immaterial. *Id.*

Defendant counters that Plaintiff ignores the vast majority of prosecution history and its entire argument is based on a single reference to "capability" in the Notice of Allowance. *See, e.g.*, Def.'s Sur-Reply [Dkt. # 97] at 2. Defendant argues the patentee used functional claim language

and added even more functional claim language during prosecution, thus claiming the structure of "microprocessor" beyond being merely a microprocessor and emphasized that structure for patentability. *Id.* at 3. While the claims recite a microprocessor for "generating" and "creating," Defendant asks the Court to construe those terms as requirements—not just capabilities. *Id.*

### (2) Analysis

#### The Issue

The primary issue as to this term is whether it is invalid for improperly reciting both apparatus and use limitations in a single claim, or whether it indicates structure capability as opposed to use.

#### Claims

The microprocessor and related memory device terms are recited in each of the independent claims in substantially similar language. As an example, Claim 1 recites:

> a **microprocessor** for <u>generating</u> a plurality of control signals used to operate said system, said microprocessor <u>creating</u> a plurality of reprogrammable communication protocols, for transmission to said external devices wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;

> a **memory device** coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor <u>so as to recreate</u> a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets;

(emphasis added). Based on a plain reading of the claims, the microprocessor is configured to create the communication protocols (which includes a command code set). As recited in the memory device limitation, the microprocessor is configured to retrieve parameters sets from the microprocessor so as to recreate a desired command code set.

Prosecution History

In response to the office action rejecting the claims over the prior art, the applicant amended

independent claims 1 and 10 to include additional detail on the "microprocessor" limitation and

include the entire "memory device" limitation:

> 1 (Amended).        A communications, command, control and sensing system for
> communicating with a plurality of external devices comprising:
>
>             a microprocessor for generating a plurality of [predetermined]
> control signals used to operate said system, said microprocessor creating a plurality of
> reprogrammable communication protocols, for transmission to said external devices wherein
> each communication protocol includes a command code set that defines the signals that are
> employed to communicate with each one of said external devices;
>
>             a memory device coupled to said microprocessor configured to
> store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired
> command code set, such that the memory space required to store said parameters is smaller than
> the memory space required to store said command code sets;

Oct. 31, 1997 Response to Office Action at 1–2. In the response, the applicant explained these

limitations:

> Thus, one of the features of the present invention is to alleviate the requirement
> for such a large memory space. The amount of required memory space is substantially reduced
> so as to communicate with a plurality of devices via different signals by providing a memory that
> stores information as stated on page 16, lines 3-6:
>
>> [A] memory device, such as a RAM, ROM, EPROM or EEPROM,
>> ...is configured to store a finite set of parameters that may be used
>> to recreate and generate signals corresponding to a desired
>> command code set. These parameters take substantially less
>> memory space than if the entire signal were to be stored. (emphasis
>> added)

> Therefore, instead of storing actual signals that are employed to communicate with external devices, in accordance with one embodiment of the present invention, a set of parameters are stored in the memory, and the actual signals are recreated or reconstructed based on the information provided by these parameters as stored. This feature allows the communication system to have an open architecture, so that the microprocessor can be reprogrammed so that proper signals corresponding to a new device can be recreated by storing or varying the parameters related to the new device.

*Id.* at 10–11. Thus, the stored parameters are used to recreate and generate signals corresponding to a desired command code set; the microprocessor can be reprogrammed so that proper signals corresponding to a new device can be recreated by storing or varying the parameters related to the new device. *See id.*

The applicant distinguished the prior art as not having this feature. For example, Defendant argued the Krisbergh prior art reference "does not teach or suggest a memory device that is configured to store a plurality of parameter sets that may be retrieved by the microprocessor so as to recreate a desired command code set." *Id.* at 12. In the Notice of Allowance, the Examiner indicated the claims were directed to the "capability" of the claimed system to recreate a command code set from a set of parameters to communicate with external devices:

> 4. The following is an examiner's statement of reasons for allowance:
>
> Though remote control systems with the capability of communicating with a plurality of external devices with different communication protocols and command codes are well known in the art (e.g., Krisbergh et al. (US 5,138,649), Amano et al. (US 4,999,622)), a communications, command, control and sensing system, as defined by Applicant's independent claims, with the additional capability to recreate an external devices command code set from a set of parameters for the external device and thus, reduce the required memory space to store command code sets to that of the parameter set alone **has not been observed in the prior art.**

Notice of Allowance (Feb. 17, 1998) at 2. On balance, the prosecution history indicates that the claims are directed to the capability of the system to perform the recited function and do not require or indicate any actual use of the system to perform the recited functions.

## Specification

The specification repeatedly references to the microprocessor term. For example:

> In order to substantially decrease the amount of memory necessary to store infrared signals, **microprocessor** 30 in accordance with the present invention, retrieves data from a memory device, such as a RAM, ROM, EPROM or EEPROM, that is configured so as to store a finite set of parameters that may be used to recreate and generate signals corresponding to a desired command code set. These parameters take substantially less memory space than if the entire signal were to be stored.

'467 Patent at 8:22–30.

> **Microprocessor** 30 in accordance with the present invention may also be configured such that a set of signals belonging to a command code set may be generated by using parameters stored in one array, and remaining sets of signals belonging to the same command code set may be generated by using parameters stored in other arrays.

*Id.* at 8:60–65.

> It will be appreciated that **microprocessor** 30 may generate a sequence of signals for a desired command code set, based on the information contained in a corresponding parent or child array. In operation **microprocessor** 30 is configured to generate signals for a variety of most popular command code sets relating to most popular commercially available devices.

*Id.* at 16:40–45 (emphasis added). In general, the specification is clear that the microprocessor must be configured to generate the signals.

## Conclusion

The parties differ about whether the recited claim language involves a mixed-use claim limitation that impermissibly includes both apparatus and use limitations. A single claim covering

both an apparatus and a method of use of that apparatus fails to meet the requirements of § 112 because "it is unclear whether infringement . . . occurs when one creates a[n infringing] system [ . . . ], or whether infringement occurs when the user actually uses [the system in an infringing manner]." *IPXL Holdings, LLC* v. *Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). Nonetheless, "apparatus claims are not necessarily indefinite for using functional language." *Microprocessor Enhancement Corp.* v. *Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008). If an apparatus claim "is clearly limited to [an apparatus] possessing the recited structure and capable of performing the recited functions," the claim is not indefinite. *Id.*

Overall, the Court finds that the "microprocessor" claims of the '467 Patent are not indefinite, as they reflect the *capability* of the claimed apparatus. Unlike the claims at issue in *IPXL Holdings* and similar claims,[1] the claims at issue here make clear the "microprocessor" limitation reflects the capability of that structure rather than the activities of the user. *See also UltimatePointer, L.L.C.* v. *Nintendo Co.*, 816 F. 3d 816, 826–27 (Fed. Cir. 2016).

Based on its review of the claims, specification, and prosecution history, the Court finds the microprocessor must be configured to generate the plurality of control signals. The claim indicates only a *capability* of the structure rather than the actual use; therefore, the claim is not indefinite as improperly combining mixed use and apparatus claims. The claims indicate the ability to store a plurality of parameter sets so as to recreate a desired command code set, and do not actually require that any command code set actually be created. According, the Court rejects Defendant's

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[1] In *IPXL Holdings*, the claim at issue recited a system including input means, wherein "the user uses the input means." *See, e.g.*, *IXPL Holdings*, 430 F.3d at 1384. Thus, the claims were unclear about whether infringement occurred when the system was created or when the system was used. *See id.*

arguments to the contrary and rejects the application of *IPXL Holdings*. The Court finds Defendant's arguments relating to the "timing" of the creating and/or recreating steps unpersuasive.

The Court construes the term "a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of reprogrammable communication protocols" in claims 1, 10, and 34 to mean "**a microprocessor configured to generate a plurality of control signals used to operate said system and configured to create a plurality of [reprogrammable] communication protocols.**"

### C.  "memory device" (claims 1, 10, and 34)

| Disputed Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|---|
| a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets (claims 1, 10) | not a means-plus-function claim ➔ plain and ordinary meaning | Means-plus-function limitation<br><br>Function: "storing a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets"<br><br>Structure: Invalid for failure to provide corresponding structure linked to recited function.<br><br>In the alternative (if not means-plus-function limitation): "a memory device configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets" |

| | | Means-plus-function limitation |
|---|---|---|
| a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate based on said parameter sets a desired set of pulse signals corresponding to logical "1's" and "0's" as specified by a command code set (claim 34) | not a means-plus-function claim ➔ plain and ordinary meaning | Function: "storing a plurality of parameter sets retrieved by said microprocessor so as to recreate based on said parameter sets a desired set of pulse signals corresponding to logical "1's" and "0's" as specified by a command code set"<br><br>Structure: Invalid for failure to provide corresponding structure linked to recited function.<br><br>In the alternative (if not means-plus-function limitation): "a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate based on said parameter sets a desired set of pulse signals corresponding to logical "1's" and "0's" as specified by a command code set" |

### (1) The Parties' Positions

Plaintiff contends the plain and ordinary meaning of this term is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 8. Plaintiff argues that because the term "means" is not used there is a presumption that it is not a means-plus-function limitation. *Id.* Defendant has not rebutted that presumption.

Defendant argues the term should be construed under 112(f) because it recites function without reciting sufficient structure for performing the function. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 14. Defendant argues that while the memory device can be configured to be stored, it cannot itself perform the recited functions. *Id.* Because there is no corresponding structure that the memory device can perform recited function, then the claim is invalid. *Id.* In the alternative, if it

is not a 112(f) limitation, the memory device limitation should be limited to include the additional functional language describing the structure of the memory device. *Id.*

Plaintiff replies that Defendant has not rebutted the presumption that it is not a means-plus-function limitation. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 6. Further, Plaintiff argues Defendant's recited function improperly links that function to the memory device rather than the microprocessor. *Id.* at 6–7. Plaintiff argues the specification clearly reflects that the memory device stores data and is not capable of recreating command code sets, as opposed to a microprocessor that creates and recreates command code. *Id.* Further, regarding Defendant's alternative construction, Plaintiff argues Defendant provides no reasonable basis to rewrite the claim language. *Id.* at 7–8.

Defendant counters that Plaintiff seeks to rewrite the "memory device" limitations by ignoring functional language Plaintiff admits cannot be performed by the memory device. *See, e.g.*, Def.'s Sur-Reply [Dkt. # 97] at 3. Defendant argues the limitations cannot be ignored or attributed to a different limitation. *Id.* Defendant also argues that Plaintiff concedes the memory device lacks sufficient structure to perform all of the recited functionality, thereby requiring 112(f). *Id.* at 3–4.

#### (2) Analysis

##### The Issues

There are two issues here: (1) whether the memory device or the microprocessor performs the recited "recreate a desired command code set" limitation, and (2) whether this term is a means-plus-function limitation, and

##### The Claims

The memory device and microprocessor related terms are recited in each of the independent claims in substantially similar language. Claim 1, for example, recites:

a **microprocessor** for <u>generating</u> a plurality of control signals used to operate said system, said microprocessor <u>creating</u> a plurality of reprogrammable communication protocols, for transmission to said external devices wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;

a **memory device** coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor <u>so as to recreate</u> a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets

(emphasis added). Based on a plain reading of the claims, the memory device is configured to store a plurality of parameter sets and the microprocessor is configured to retrieve those parameter sets. In addition, the Court finds that the most accurate plain reading of the "memory device" limitation is that the microprocessor is configured to retrieve parameters sets from the microprocessor so as to recreate a desired command code set. In other words, the *microprocessor* recreates the desired command code set—not the memory device.

The Prosecution History

In response to the office action rejecting the claims over the prior art, the applicant amended independent claims 1 and 10 to include additional detail on the "microprocessor" limitation and include the entire "memory device" limitation:

1 (Amended).        A communications, command, control and sensing system for communicating with a plurality of external devices comprising:

a microprocessor for generating a plurality of [predetermined] control signals used to operate said system, said microprocessor creating a plurality of reprogrammable communication protocols, for transmission to said external devices <u>wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;</u>

> a memory device coupled to said microprocessor configured to
> store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired
> command code set, such that the memory space required to store said parameters is smaller than
> the memory space required to store said command code sets;

Oct. 31, 1997 Response at 1–2). In its response, the applicant explained these limitations:

> Thus, one of the features of the present invention is to alleviate the requirement
> for such a large memory space.  The amount of required memory space is substantially reduced
> so as to communicate with a plurality of devices via different signals by providing a memory that
> stores information as stated on page 16, lines 3-6:

>> [A] memory device, such as a RAM, ROM, EPROM or EEPROM,
>> ...is configured to store a finite set of parameters that may be used
>> to recreate and generate signals corresponding to a desired
>> command code set.  These parameters take substantially less
>> memory space than if the entire signal were to be stored. (emphasis
>> added)

> Therefore, instead of storing actual signals that are employed to communicate
> with external devices, in accordance with one embodiment of the present invention, a set of
> parameters are stored in the memory, and the actual signals are recreated or reconstructed based
> on the information provided by these parameters as stored.  This feature allows the
> communication system to have an open architecture, so that the microprocessor can be
> reprogrammed so that proper signals corresponding to a new device can be recreated by storing
> or varying the parameters related to the new device.

*Id.* at 10–11. Thus, the stored parameters are used to recreate and generate signals corresponding

to a desired command code set; the microprocessor can be reprogrammed so that proper signals

corresponding to a new device can be recreated by storing or varying the parameters related to the

new device. *See id.* The applicant distinguished the prior art as not having this feature. For exam-

ple, Defendant argued the Krisbergh prior art reference "does not teach or suggest a memory device

that is configured to store a plurality of parameter sets that may be retrieved by the microprocessor

so as to recreate a desired command code set." *Id.* at 12. Again, consistent with the claims, the

Court finds the prosecution history confirms that the microprocessor, not the memory device, rec-

reates the desired command code set.

<div align="center">The Specification</div>

The specification has repeated references to the "microprocessor" and "memory device"

terms, such as:

> In order to substantially decrease the amount of memory necessary to store infra-
> red signals, **microprocessor** 30 in accordance with the present invention, <u>retrieves
> data</u> from a **memory device**, such as a RAM, ROM, EPROM or EEPROM, <u>that is
> configured so as to store a finite set of parameters that may be used to **recreate** and
> generate signals c</u>orresponding to a desired command code set. These parameters
> take substantially less memory space than if the entire signal were to be stored.

'467 Patent at 8:22–30 (emphasis added).

> **Microprocessor** 30 in accordance with the present invention may also be <u>config-
> ured</u> such that a set of signals belonging to a command code set may be <u>generated</u>
> by using parameters stored in one array, and remaining sets of signals belonging to
> the same command code set may be <u>generated</u> by using parameters stored in other
> arrays.

*Id.* at 8:60–65 (emphasis added).

> It will be appreciated that **microprocessor** 30 may <u>generate</u> a sequence of signals
> for a desired command code set, based on the information contained in a corre-
> sponding parent or child array. In operation **microprocessor** 30 is <u>configured to
> generate signals</u> for a variety of most popular command code sets relating to most
> popular commercially available devices.

*Id.* at 16:40–45 (emphasis added). The Court finds that the specification teaches that the microprocessor—not the memory device—recreates the desired command code set.

Overall, the Court finds the language of the claims, the prosecution history, and the specification confirm the memory device "stores" a plurality of parameter sets and the microprocessor retrieves those parameter sets so as to recreate a desired command code set (see claims 1 and 10) or a desired set of pulse signals (see claim 34). Thus, the Court rejects Defendant's arguments[2] to the contrary and concludes its construction is a contorted reading of the claims that ignores the prosecution history and specification. Further, requiring a memory device to perform such recited functions would be contrary to how memory devices actually function and are used and contrary to the specification.

As to the second issue, it is well settled that a claim limitation that actually uses the word "means" invokes a rebuttable presumption that § 112, ¶ 6 applies. *See*, *e.g.*, *Williamson*, 792 F.3d at 1349. It is also equally understood that a claim term that does *not* use "means" will trigger the rebuttable presumption that § 112, ¶ 6 does *not* apply. *Id.* But the presumption against the application of § 112, ¶ 6 can be overcome if a party can "demonstrate[] that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Id.* (*quoting Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)).

Here, the disputed term does not recite the word "means." Therefore, there is a rebuttable

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[2] Defendant's primary argument appears to be that simply because the "recreate" limitation is found in the memory device limitation, that it must require the memory device to perform that limitation; otherwise it would have been included somewhere else in the claim. Besides not being supported by case law, Defendant's argument ignores that "microprocessor" is also recited in the memory device limitation.

presumption that § 112, ¶ 6 does not apply. Defendant, however, has failed to rebut the presumption because "the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Williamson*, 792 F.3d at 1348. Thus, the Court finds the term "memory" has a reasonably well-understood structural meaning and is sufficient structure for accomplishing the recited function of storing a plurality of parameters sets.

That the simple term "memory" may cover a broad class of structures does not mean it is structure-less. To those of skill in the art, memory is a specific structure that stores data. Consistent with this understanding, the specification provides an example of the memory as being a "RAM, ROM, EPROM, or EEPROM that is configured so as to store a finite set of parameters that may be used to recreate and generate signals corresponding to a desired command code set." '467 Patent at 8:25–28. On balance, the Court finds Defendant has failed to rebut the presumption. Thus, the term is a not means-plus-function limitation governed by 35 U.S.C § 112, ¶ 6. This finding is further confirmed by Defendant's alternative construction, which effectively adopts a plain and ordinary meaning approach for the disputed term.

One of ordinary skill in the art, based upon the specification and the claims, would understand "memory device" to have its plain and ordinary meaning. And one of ordinary skill in the art, based upon the specification and the claims, would understand the remaining terms in the disputed phrase to likewise have their plain and ordinary meanings, which is further supported by Defendant's alternative construction. Indeed, Defendant does not appear to dispute any material terms in the disputed phrase but just disagrees as to what component performs a particular limitation.

Because this resolves the dispute between the parties, the Court finds that no other terms within the disputed phrase requires further construction. *See U.S. Surgical Corp. v. Ethicon, Inc.*,

103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court construes "a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets" to mean "**a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate, by the microprocessor, a desired command code set, such that the memory space required to store said parameters is smaller than the memory space required to store said command code sets.**"

The Court hereby construes the term "a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate based on said parameter sets a desired set of pulse signals corresponding to logical "1's" and "0's" as specified by a command code set" to mean "**a memory device coupled to said microprocessor configured to store a plurality of parameter sets retrieved by said microprocessor so as to recreate, by the microprocessor, based on said parameter sets a desired set of pulse signals corresponding to logical "1's" and "0's" as specified by a command code set.**"

The Court notes that these constructions are consistent with the constructions proposed by the Court at the claim construction hearing, to which Plaintiff had no objections.

### D.  "selector" (claim 2)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a device that transmits a command code set generated by a microprocessor to an external device via either radio frequency or infra-red frequency signals as selected by a user, and receives signals from external devices via both radio frequency and infra-red |

### (1) The Parties' Positions

Defendant argues the limitations surrounding the term should include structure of the selector and arguments made in the prosecution history. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 17–18. In effect, Defendant argues prosecution history disclaimer.

Plaintiff argues the plain and ordinary meaning of this term is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 9. To Defendant's argument, Plaintiff replies that Defendant attempts to rewrite the term to require "use by a user" and add limitations without any support. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 9–10. Plaintiff argues nothing in the prosecution history rises to the level of a disavowal and that Defendant's inclusion of the word "both" contradicts the claim language that only requires "either." *Id.* at 10.

Defendant counters that its construction is supported by the specification and prosecution history. *See, e.g.*, Def.'s Sur-Reply [Dkt. # 97] at 4. Defendant argues that during prosecution the patentee made clear statements to identify user selection between RF and IR as the key difference between the claimed invention and the prior art. *Id.* Defendant argues the express claim language further support that the selector has the capability of receiving signals from external devices via *both* RF and IR. *Id.* Defendant argues that because the selector needs to be able to transmit via either RF or IR signals "as desired," and to receive a signal from any one of the external devices

via either RF or IR signals, the selector has to receive via both RF and IR. *Id.*

### (2) Analysis

### The Issues

The Court will consider (1) whether the "selector" device is operated/selected by the "user," and (2) whether it receives both RF and IR signals. Defendant argues such limitations are required for this term and Plaintiff argues the term simply has its plain and ordinary meaning.

### The Claims

The "selector" limitation is found in claims 2 and 10. Claim 10, for example, recites:

> a **selector** controlled by said microprocessor for enabling said radio frequency transceiver and said infra-red frequency transceiver, to transmit a desired command code set generated by said microprocessor via **either** radio frequency signals and infra-red signals **as desired**, and to receive a signal from any one of said external devices via **either** radio frequency signals and infra-red signals; and

(emphasis added). According to the claim language, the selector may transmit via "either" RF signals and IR signals, and may receive via "either" RF and IR signals. The claim language expressly states "either" and not "both." The language of the selector limitation likewise recites the phrase "as desired," and does not require the "user" to necessarily make the decision or selection.

### The Specification

The specification has numerous references to the "selector" limitation. For example, the patent states it is an "object of the present invention to provide full two way RF and IR communication links to all types of apparatus and/or appliances." '467 Patent at 1:50–52. FIG. 1b shows each external appliance/apparatus, handset, and base station may receive and transmit RF and IR signals. FIG. 3 shows RF/IR selector 52 of the handset, and FIG. 5 shows RF/IR selector 165 of the base station. In each figure, the selector is coupled to both the RF and IR frequency transceivers.

The specification also teaches how the RF/IR selector is utilized. For example:

> Radio frequency operation is accomplished through the use of RF transceiver 50, **RF/IR selector 52**, microprocessor 30, frequency synthesizer 56, and a phase locked loop circuit. Frequency selection or channel designation and selection is controlled by microprocessor 30. Transmission and reception protocols are contained within microprocessor 30 and are activated based on the mode selection made via touch sensitive device 14. In this manner, handset 10 communicates with any number of external devices having compatible transceivers.

'467 Patent at 20:2–11 (emphasis added).

> In one embodiment, touching the touch sensitive device 14, in an area labeled "intercom", activates a communication path from microphone 18 to sound/data coupler 62 to **RF/IR selector 52** to either radio frequency transceiver 50 or infra-red frequency transceiver 60 to establish a two way communication link with a wireless intercom 2 as shown in FIG 1b.

*Id.* at 20:12–17 (emphasis added).

> Referring back to FIG. 3, in an intercom embodiment, an external intercom apparatus 2 (See FIG. 1b) generates a control and voice signal that is detected by either radio frequency transceiver 50 or infra-red transceiver 60. The received radio frequency signals are routed by the **RF/IR selector 52**. The control signal goes to microprocessor 30, via data detector 54. The voice signal goes to the D/A converter 36 for output to speaker 20, or it goes directly to speaker 20. The received infra-red frequency signals are routed by **RF/IR selector 52**. The control signal goes to microprocessor 30 for processing, including generating a ringer signal, and the voice signal goes to D/A converter 36 for output to speaker 20 or it goes directly to speaker 20. In one embodiment in accordance with the invention base station 25 interacts with handset 10 to perform intercom and paging functions.

*Id.* at 20:41–56 (emphasis added). It is clear in the specification the selector is an RF/IR selector that can receive both IR and RF signals. The specification is also clear that frequency selection or channel designation and selection is controlled by the protocols in the microprocessor that are activated by mode selection made via touch sensitive device 14. '467 Patent at 20:5–6.

### The Prosecution History

In response to the office action rejecting the claims over the prior art, the applicant amended various portions of the claims, including claim 10:

> a selector controlled by said microprocessor for enabling said radio frequency transceiver and said infra-red frequency transceiver, to transmit a desired command code set generated by said microprocessor via either radio frequency signals and infra-red signals as desired, and to receive a signal from any one of said external devices via either radio frequency signals and infra-red signals [in accordance to said user selections]; and

Oct. 31, 1997 Response at 5. In its response, the applicant explained this limitation:

> Another feature of the present invention, as disclosed in one embodiment is the ability to communicate the same signal via either radio-frequency (RF) or infra-red frequency (IR) signals. As illustrated in Fig. 3 and the accompanying description, a handset or a base station of one embodiment of the communication system of the present invention, is capable of transmitting signals to or receiving signals from the same external device in either RF or IR mode. This feature allows the user to select a desired mode based on, for example, environmental factors or range of communication with the external device.

*Id.* at 11. And the applicant distinguished the prior art as not having this selector feature:

> disclose a selector that allows the transmission and reception of the same signals via either radio frequency (RF) range or infra-red frequency (IR) range as desired. Krisbergh's system does not even includes an IR transceiver. Furthermore the remote control of Krisbergh communicates with an external device, such as the TV in IR range and communicates, the speech signals with the telephone base unit in RF range. There is no selector in Krisbergh that allows communication with external devices in a dual frequency range as selected by the user.
>
> Similarly, with respect to Vanttinen, not only the system lacks this selection feature as well, but also, Vanttinen's disclosure teaches away the use of any RF communication.

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> As previously stated Krisbergh does not disclose a selector that allows the
> transmission and reception of signals via either radio frequency (RF) range or infra-red frequency
> (IR) range as desired.  Krisbergh's system does not even include an IR transceiver for sending
> and receiving signals in IR range.  Furthermore the remote control of Krisbergh communicates
>
> with an external device, such as the TV in IR range and communicates, the speech signals with
> the telephone base unit in RF range.  There is no selector in Krisbergh that allows
> communication with external devices in a dual frequency range as selected by the user.
> Applicant submits that for this reason alone, claim 2 is deemed allowable.

*Id.* at 13–14. While the prosecution history seems clear the selector is capable of transmitting and receiving signals in <u>either</u> RF or IR mode, it does not necessarily require the selector to receive <u>both</u> IR and RF signals from a given device. The prosecution history also seems clear that the <u>user</u> selects the desired mode.

<div align="center">Conclusion</div>

The Court finds the claim language controlling. The claim language states the selector transmits either RF or IR signals "as desired." The word "desired" implies user selection. Additionally, the specification and prosecution history makes clear the user selects the desired transmission mode. This is consistent with other portions of the claim (see claim 1 and 10), which require a "user interface" for sending "user selections" and obtaining the "user's choice."

Regarding the "either"/"both" dispute, the Court is not persuaded the claim language should be changed from "either" to "both," which is never used in the intrinsic record. Further, the claims, specification, and prosecution history all support Plaintiff's position the selector need only receive either an IR or RF signal from an individual device and not necessarily both IR and RF signals from an individual device.

The Court construes "a selector controlled by said microprocessor for enabling said radio

frequency transceiver and said infra-red frequency transceiver to transmit a desired command code set generated by said microprocessor via either radio frequency signals and infra-red signals as desired, and to receive a signal from any one of said external devices via either radio frequency signals and infra-red signals" to mean "**a selector controlled by said microprocessor for enabling said radio frequency transceiver and said infra-red frequency transceiver to transmit a desired command code set generated by said microprocessor via either radio frequency signals and infra-red signals as selected by a user, and to receive a signal from any one of said external devices via either radio frequency signals and infra-red signals.**"

The Court notes this construction is consistent with the construction proposed by the Court at the claim construction hearing, to which neither Plaintiff nor Defendant objected.

### E. "data detector" (claim 10)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a device configured to receive signals from each one of the external devices through the selector and to transmit control signals from the external devices to a microprocessor |

### (1) The Parties' Positions

Plaintiff argues the plain and ordinary meaning of this term is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant argues the term should include the functional language in the claim purporting to describe the structure of the data detector. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 18. Plaintiff counters that Defendant attempts to rewrite the term without any support. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 10.

**(2) Analysis**

The Issue

The primary issue as to this term is whether the plain and ordinary meaning applies or whether a more narrowing definition is appropriate.

The Claims

The "data detector" phrase is found in claim 10, which recites:

> a **data detector** coupled to said selector for receiving signals transmitted from each one of said external devices, said data detector providing control signals received from said external devices to said microprocessor.

(emphasis added). This phrase was not added or amended during the prosecution of the '467 Patent. There were no statements in the prosecution history particularly relevant to this term or the parties' dispute, and neither party relies on portions of the specification or prosecution history in support of their arguments.

Conclusion

The Court is not persuaded by Defendant's arguments. Specifically, the Court is not convinced that a change of the word is appropriate or helpful or the inclusion of the phrase "through the selector" is warranted. At best, it is an inappropriate limitation to the preferred embodiment of the specification.

The Court finds one of ordinary skill in the art, based upon the specification and the claims, would understand the disputed term to have its plain and ordinary meaning. The Court therefore rejects Defendant's arguments to the contrary, and no further clarification of the term is necessary. Because this resolves the dispute between the parties, the Court finds that the term requires no further construction. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify

and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court construes the term "a data detector coupled to said selector for receiving signals transmitted from each one of said external devices, said data detector providing control signals received from said external devices to said microprocessor" to have its **plain and ordinary meaning**. The Court notes this construction is consistent with the construction proposed by the Court at the claim construction hearing, to which neither Plaintiff nor Defendant objected.

### F.   "command code set" (claims 1, 10, and 34)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a set of signals that constitute the universe of signals necessary to perform all of the specific functions in each remotely controlled device |

### (1) The Parties' Positions

Generally, Plaintiff argues the plain and ordinary meaning of all disputed terms is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant argues this term is not readily understandable by the jury and needs a construction and that this term was defined in the application. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 19. Plaintiff replies that Defendant attempts to limit the claim term to a preferred embodiment of the specification. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94 at 10. Plaintiff also argues Defendant inserts language—"the universe of signals"—that is not found in the claims, specification, or prosecution history. *Id.* at 11. Plaintiff argues that Defendant

has not shown any disavowal as to this term. *Id.*

### (2) Analysis

### The Issue

The primary issue as to this term is whether the plain and ordinary meaning applies or whether a more narrowing definition is appropriate.

### The Claims

"Command code set" appears in the microprocessor limitation in claims 1, 10, and 34:

[from claim 1] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of reprogrammable communication protocols, for transmission to said external devices **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;**

[from claim 10] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of communication protocols for transmission to said external devices, each protocol containing a plurality of control signals used to interface with an external device, **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;**

[from claim 34] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of reprogrammable communication protocols for transmission to said external devices **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices[.]**

(emphasis added). Notably, each independent claim specifies that "each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices." In the separate "selector" limitation (see claims 2 and 10), the claim language states the microprocessor generates a "command code set."

### The Specification

The specification is consistent with the claims:

Typically, each manufacturer of one of these devices such as TV sets, VCR sets, CD players and Cable boxes, employs a specific communication protocol that includes a command code set for performing various functions to remotely control the device. **Each command code set comprises a set of signals, wherein each signal is utilized to perform an available function.** For example, a TV set made by manufacturer A, may require a command code set that includes various signals to remotely control various available functions such as channel up, channel down, volume up, volume down, mute, and power "on" and "off". This command code set may have a different set of signals than another command code set employed for a TV set made by manufacturer B. In the alternative, manufacturer A may employ different command code sets for its own various models of TV sets.

It will be appreciated that a handset that is capable of communicating with substantially all major brands of various devices, or transmit infra red frequencies insulated with control signals ranging from 30-130 KHz, requires a substantially large memory to store all the **command code sets** with various sets of signals. For example, it is desirable to store approximately 270 different code sets that may be used by handset 10 to remotely communicate with major brand TV sets, VCR sets, CDS and Cable boxes. These devices are adapted to receive infra-red signals with frequencies ranging from 30-120 KHz. **On the average, each command code set may contain about 20 signals, wherein each signal is used to perform a desired function.**

'467 Patent at 7:40–67 (emphasis added).

As mentioned previously, **each command code set includes a set of signals that may be employed to transmit a specific command to an infra-red receiver located in an electronic device that is being controlled.** In one embodiment of microprocessor 30, in accordance with the present invention, each command code set is represented by parameters stored in an array comprising a set of variable fields that may vary in size depending on the amount of information stored in each field.

*Id.* at 8:31–39 (emphasis added).

### The Prosecution History

Neither party substantively relies on the prosecution history in support of their positions

on this term. But as discussed in relation to the microprocessor term, the phrase "wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices" was added during prosecution of the '467 Patent. *See, e.g.*, Oct. 31, 1997 Resp. to Office Action (see claims 1 and 10). The applicant explained "each of these communication protocols as used by various devices includes a command code set for performing various functions so as to allow a user to remotely control an external device. Each command code set comprises a set of signals, wherein each signal is utilized to perform an available function on the external device." *Id.* at 10.

### Conclusion

Nothing in the intrinsic record requires Defendant's construction. For example, the term "universe" is never mentioned in the intrinsic record. In fact, the intrinsic record is consistent in requiring the command code set to comprise a set of signals, wherein each signal is used to perform a desired/available function on the external device. Defendant's construction is not only unwarranted based on the intrinsic record, it appears to contradict the plain meaning of the claims. In other words, rather than only containing signals that are used to perform certain functions on the external device, Defendant's language would require the signals to constitute all potential functions in each device. Even if, *arguendo*, there is some support in the specification for Defendant's argument, the Court finds the examples in the specification are non-limiting embodiments of the invention that should not be imported into the claims. Simply put, the claim does not require the limitations proposed by Defendant.

The Court finds one of ordinary skill in the art, based upon the specification and the claims, would understand the disputed term to have its plain and ordinary meaning. The Court rejects Defendant's arguments to the contrary. No further clarification of the terms is necessary. Because

this resolves the dispute between the parties, the Court finds that the term requires no further con-struction. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of in-fringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court construes the term "command code set that defines the signals that are employed to communicate with each one of said external devices" to have its **plain and ordinary meaning**. The Court notes this construction is consistent with the construction proposed by the Court at the claim construction hearing, to which neither Plaintiff nor Defendant objected.

### G. "communication protocols" (claim 1, 10, and 34)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | sets of rules that allow for two or more devices to communicate wirelessly with one another using a command code set to pro-duce an action in a remotely controlled external device |

#### (1) The Parties' Positions

Plaintiff argues generally that the plain and ordinary meaning of all disputed terms is ap-propriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant argues this term is not readily understandable by the jury and needs a construction. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 19. Defendant argues that its construction is supported by the intrinsic evidence. *Id.* at 20. Plaintiff counters that Defendant attempts to rewrite the term without any support. *See, e.g.*, Pl.'s Reply Br.

[Dkt. # 94] at 11. Plaintiff also argues that Defendant inserts language—"two or more devices" and "to produce an action"—that is not supported based on the intrinsic record. *Id.* Plaintiff argues that Defendant has not shown any disavowal as to this term. *Id.*

### (2) Analysis

### The Issues

The primary issue as to this term is whether the plain and ordinary meaning applies or whether a more narrowing definition is appropriate. The "communications protocol" term is related in substance and form to the prior "command code set" limitation.

### The Claims

"Communications protocol" is found in the microprocessor limitation in claims 1, 10, and 34:

[from claim 1] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of reprogrammable **communication protocols**, for transmission to said external devices **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;**

[from claim 10] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of **communication protocols** for transmission to said external devices, each protocol containing a plurality of control signals used to interface with an external device, **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;**

[from claim 34] a microprocessor for generating a plurality of control signals used to operate said system, said microprocessor creating a plurality of reprogrammable **communication protocols** for transmission to said external devices **wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices;**

(emphasis added). Each independent claim specifies the microprocessor creates a "plurality of [reprogrammable] communication protocols" for transmission to external devices. Each independent claim then defines the communication protocol in relation to the subsequently recited "command code set." In other words, the claim language itself defines a communication protocol as having "a command code set that defines the signals that are employed to communicate with each one of said external devices." In the separate "user interface" limitation, the claim states the microprocessor generates a "communication protocol" in response to a user selection.

### The Specification

The specification is consistent with the claims:

> Open architecture software within microprocessor 30 creates a **generalized command and control protocol** which makes it possible to interact, in a wireless mode, with any number of external devices that have compatible transceivers with wireless communications, command, control and sensing handset 10. The software also provides all the internal **controls and necessary protocols** for specified radio and infra-red communication links. Control signals created by these protocols allow the system to be used as a wireless telephone or as a remote controller for entertainment appliances or alarm systems or energy control systems or for personal security operations, etc.

'467 Patent at 7:14–25.

> The handset is further configured to utilize several **communication protocols** employed by various manufacturers or various models of the same brand. Typically, each manufacturer of one of these devices such as TV sets, VCR sets, CD players and Cable boxes, employs a **specific communication protocol that includes a command code set for performing various functions to remotely control the device.** Each command code set comprises a set of signals, wherein each signal is utilized to perform an available function. For example, a TV set made by manufacturer A, may require a command code set that includes various signals to remotely control various available functions such as channel up, channel down, volume up, volume down, mute, and power "on" and "off". This command code set may have a different set of signals than another command code set employed for a TV set made by manufacturer B. In the alternative, manufacturer A may employ different

command code sets for its own various models of TV sets.

*Id.* at 7:37–54 (emphasis added). These excerpts are clear that each communication protocol includes a command code set for performing various functions to remotely control the external device.

### The Prosecution History

Neither party substantively relies on the prosecution history in support of their positions on this term. But as discussed in relation to the microprocessor term, the phrase "wherein each communication protocol includes a command code set that defines the signals that are employed to communicate with each one of said external devices" was added during prosecution of the '467 Patent. *See, e.g.*, Oct. 31, 1997 Resp. to Office Action (see claims 1 and 10). And during prosecution, the applicant explained "each of these communication protocols as used by various devices includes a command code set for performing various functions so as to allow a user to remotely control an external device. Each command code set comprises a set of signals, wherein each signal is utilized to perform an available function on the external device." *Id.* at 10.

### Conclusion

The Court is not persuaded by Defendant's arguments given that nothing in the intrinsic record requires Defendant's construction. For example, the term "rules" or "set of rules" is never mentioned in the intrinsic record, and the inclusion of such terms would add ambiguity and/or confusion to this term. Overall, the intrinsic record is consistent with the claims in defining the communication protocol in relation to the command code set. In effect, Defendant is trying to redefine the "command code set" term rather than defining the "communication protocol" term. Defendant's attempt to separately define both "communication protocols" and "command code set" using similar language / limitations makes such limitations redundant and/or superfluous.

Overall, the Court finds "communication protocol" is sufficiently defined by the claim language and, in particular, the "command code set" limitation. Nothing else is needed. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

Accordingly, the Court construes the term "communication protocols" to have its **plain and ordinary meaning**. The Court notes that this construction is consistent with the construction proposed by the Court at the claim construction hearing, to which neither Plaintiff nor Defendant objected.

### H.  "parameter sets" (claims 1, 10, and 34)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a set of predefined encoded data stored in the memory device that the microprocessor retrieves and uses to recreate a command code set |

#### (1) The Parties' Positions

Plaintiff argues generally that the plain and ordinary meaning of all disputed terms is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant argues that this term is not readily understandable by the jury and needs a construction. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91]

at 19. Defendant argues its construction is supported by the intrinsic evidence. *Id.* at 20–21. Plaintiff replies that Defendant's construction improperly imports limitations from the specification. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 12. Further, the phrase "predefined encoded data" is not found in the patent. *Id.* Plaintiff argues Defendant has not shown any disavowal as to this term. *Id.*

### (2) Analysis

#### The Issue

The primary issue is whether the plain and ordinary meaning applies or whether a more narrowing definition is appropriate.

#### The Claims

"Parameter sets" is found in the independent claims and is used similarly. In particular, the term "parameters" and "parameter sets" are used in the "memory device" limitation in the independent claims:

> a memory device coupled to said microprocessor configured to store **a plurality of parameter sets** retrieved by said microprocessor so as to recreate a desired command code set, such that the memory space required to store **said parameters** is smaller than the memory space required to store said command code sets;

(emphasis added). Based on the claim language, the parameter sets are retrieved by the microprocessor and used to recreate a desired command code set.

#### The Specification

The specification include numerous references to "parameters" or "parameter sets":

> In order to substantially decrease the amount of memory necessary to store infra-red signals, microprocessor 30 in accordance with the present invention, retrieves data from a memory device, such as a RAM, ROM, EPROM or EEPROM, that is configured so as to store a **finite set of parameters that may be used to recreate and generate signals corresponding to a desired command code set.** These **parameters** take substantially less memory space than if the entire signal were to be stored.

'467 Patent at 8:23–30 (emphasis added).

> In one embodiment of microprocessor 30, in accordance with the present invention**, each command code set is represented by parameters stored in an array comprising a set of variable fields that may vary in size depending on the amount of information stored in each field**. These arrays are categorized as parent or root arrays and child or branch arrays. A parent array contains **parameters** that may be utilized to generate a set of infra-red signals that belong to a desired command code set. A child array, relates to its parent array, and is used to generate a different set of signals that belong to a different desired command code set. A child or branch array may store those **parameters** that are different from its parent array. A child array may not store those **parameters** that are substantially similar to those of its parent array. For such **parameters**, the child array retrieves the necessary information from the corresponding field in its parent array to generate the signals that belong to a command code set corresponding to this child array.

*Id.* at 8:34–52 (emphasis added).

> Furthermore, parent and child arrays may also refer to certain **parameters** in other arrays to generate some of the signals that are desired in conjunction with generating a command code set. Microprocessor 30 in accordance with the present invention may also be configured such that a set of signals belonging to a command code set may be generated by using **parameters** stored in one array, and remaining sets of signals belonging to the same command code set may be generated by using **parameters** stored in other arrays.

*Id.* at 8: 57–65 (emphasis added). These excerpts, which are consistent with the express claim language, show the parameter sets are used to recreate and generate signals corresponding to a desired command code set. In addition, the specification teaches the parameters are stored in an array comprising a set of variable fields that may vary in size depending on the amount of information stored in each field.

Neither party substantively relies on the prosecution history in support of their positions on this term. But as discussed in relation to the microprocessor term, the entire "memory device" limitation/phrase (which includes the "parameter" terms) was added during prosecution of the '467

Patent. *See, e.g.*, Oct. 31, 1997 Resp. to Office Action (see claims 1 and 10).

Overall, the Court finds the patent does not provide any specific meaning to the term "parameter" or "parameter sets," and the term is used consistent with its plain and ordinary meaning. The Court rejects Defendant's construction because, among other reasons, the phrase "predefined encoded data" is never used in the intrinsic record and the construction is superfluous and/or redundant to the surrounding claim language. In general, the plain meaning of the term "parameter" means a type of variable. Consistent with the plain meaning, the '467 Patent specification appears to relate parameters as "a set of variable fields" that may vary in size depending on the amount of information stored in each field. *See, e.g.*, *id.* at 8:36–39.

But while the Court offered this construction during the claim construction hearing, the parties agreed that a plain-and-ordinary meaning construction would be more appropriate. Thus, consistent with the parties' proposal, no further clarification of the term is necessary. And because this resolves the dispute between the parties, the Court finds that the term requires no further construction. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court construes the term "parameter sets" to have its **plain and ordinary meaning**.

## I.  "backup battery power source" (claim 14)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a battery that serves as a substitute or support for a primary power source in a base station portion of the 'communications . . . system' |

### (1) The Parties' Positions

Defendant argues that while this term should have its plain meaning, a construction is necessary to ensure Plaintiff does not take a position contrary to the plain meaning. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 21. Defendant argues its construction is supported based on claims and specification. Plaintiff argues generally that the plain and ordinary meaning of all disputed terms is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. As to Defendants' position, Plaintiff counters that Defendant's construction makes the surrounding claim language superfluous. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 12. Plaintiff argues that Defendant has not shown any disavowal as to this term. *Id.*

### (2) Analysis

#### The Issue

The primary issue as to this term is whether any construction is needed or does the simple plain and ordinary meaning suffice.

#### The Claims

The disputed term appears in dependent claim 14, which recites:

The communications, command, control and sensing system of claim 10 wherein said base station further comprises a **backup battery power source.**

(emphasis added). This provides no special meaning for the term "backup battery power source."

The claim does, however, expressly requires it to be part of the "base station."

## The Specification

The specification has one reference to the disputed term:

Base station power is provided both with a **backup battery pack 115** and by direct connection to an alternating current source 116. The alternating current source is further used to charge the handset battery. A battery charger 110 provides the means for charging the handset battery and the battery within the base station 25.

'467 Patent at 25:33–35. Backup battery pack 115 is referenced in FIG. 4 by "DC POWER." The '467 Patent provides no special meaning to the term "backup battery pack," and the patent's use of the term is consistent with its ordinary meaning.

## The Prosecution History

Neither party substantively relies on the prosecution history in support of their positions on this term.

## Conclusion

The Court is not convinced by Defendant's arguments concerning this relatively simple and straightforward term. "Backup battery power source" does not appear to have a meaning other than its plain and ordinary meaning. Further, the express claim language already requires that the backup battery power source be part of the "base station." Thus, portions of Defendant's proposed construction are redundant to and/or makes the surrounding claim language superfluous. Further, the parties' dispute appears not directly related to what is a "backup battery pack," but instead the separate terms "handset" and "base station."

The Court finds that one of ordinary skill in the art, based upon the specification and the claims, would understand the disputed term to have its plain and ordinary meaning. The Court rejects Defendant's arguments to the contrary. No further clarification of the terms is necessary.

Because this resolves the dispute between the parties, the Court finds that the term requires no further construction. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court construes the term "backup battery power source" to have its **plain and ordinary meaning**. This construction is consistent with the construction proposed by the Court at the claim construction hearing, to which neither Plaintiff nor Defendant objected.

### J.  "plurality of home entertainment systems" (claim 26)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | two or more home entertainment systems that are part of the wireless communications command, control and sensing system in addition to the handset and base station |

#### (1) The Parties' Positions

Plaintiff argues generally that the plain and ordinary meaning of all disputed terms is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant responds that, while this term should have its plain meaning, a construction is necessary to make sure that Plaintiff does not take a position contrary to the plain meaning. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 22. Plaintiff replies that Defendant's construction makes the surrounding claim language superfluous. *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 13. Plaintiff argues Defendant has not shown any disavowal as to this

term. *Id.*

### (2) Analysis

#### The Issue

The primary issue as to this term is whether any construction is needed or does the simple plain and ordinary meaning suffice.

#### The Claims

The disputed term appears in dependent claim 26, which is reproduced below:

> The wireless communications command, control and sensing system of claim 23, further comprising a **plurality of home entertainment systems**, wherein said user interface generates a plurality of signals corresponding to **each of said entertainment systems**, said microprocessor generates a command signal having a corresponding protocol associated with **each one of said entertainment systems**, for transmission to said **entertainment systems**, said **entertainment systems** communicating with said communications command, control and sensing system.

(emphasis added). The claim language provides no special meaning for the term "home entertainment system."

#### The Specification

The specification references a plurality of external devices (*see* FIG. 1B) that may be used in relation to the described system / invention. *See, e.g.*, '467 Patent at 20:41–22:35. For example:

> In a **home entertainment** embodiment, the combination of touch sensitive device 14, microprocessor 30, embedded software and data base, a control signal path through RF/IR selector 52, infra-red transceiver 60 containing a light emitting device, a remote control function is established for control of TVs 5, VCRs 6, cable boxes 7, sound systems 8 and any other appliance equipped with a compatible receiver. The touch sensitive device 14 has mode and function selection sensitive areas that when touched causes microprocessor 30 to generate the appropriate command and control signals for the appliance. In an alternate embodiment, the interaction with touch sensitive device 14, microprocessor 30 and external programming options, liquid crystal display device 82, or similar device, any number of pre-programmed remote sensors 9 and/or apparatus 11 can be commanded and controlled.

> In an alternate embodiment infrared transceiver 60 may be used in conjunction with microprocessor 30 to couple and encode infrared control signals generated and transmitted by other remote infrared control devices.

'467 Patent at 21:8–27 (emphasis added). The specification mentions various devices that may be part of the home entertainment system, such as TVs, VCRs, cable boxes, and sound systems. *Id.* at 21:13–14. The '467 Patent provides no special meaning to the term "home entertainment" system, and the patent's use of the term is consistent with its ordinary meaning.

<div align="center">The Prosecution History</div>

Neither party substantively relies on the prosecution history in support of their positions on this term.

<div align="center">Conclusion</div>

The disputed term is a relatively simple and straightforward term. The Court finds "home entertainment system" does not appear to have a meaning other than its plain and ordinary meaning. The parties' dispute appears not directly related to what is a "home entertainment system," but instead whether it is a separate device from the "handset" and "base station." Therefore, a determination on this issue would help resolve the dispute between the parties as to this term.

The language in claim 26 recites "further comprising" followed by "a plurality of home entertainment systems." The home entertainment systems in the specification are described as separate devices from the base station and handset, such as TVs, VCRs, cable boxes, sound systems, etc. (*See, e.g.*, col. 21, ll. 8-13.) On balance, the Court finds that the plurality (i.e. "two or more") of home entertainment systems are separate from the previously claimed "base station" and "handset."

The Court finds that one of ordinary skill in the art, based upon the specification and the

claims, would understand the disputed term to have its plain and ordinary meaning and, as discussed above, understand that the home entertainment systems are separate from the base station and handset. No further clarification of the terms is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims.") (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court hereby construes the term "plurality of home entertainment systems" to have its **plain and ordinary meaning**.

### K.  "external device" (claim 1, 10, 34)

| Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|
| plain and ordinary meaning | a device separate from the handset and base station that is remotely controlled by the handset or base station via a command code set |

#### (1) The Parties' Positions

Plaintiff argues generally that the plain and ordinary meaning of all disputed terms is appropriate. *See, e.g.*, Pl.'s Opening Br. [Dkt. # 85] at 10. Defendant argues that while this term should have its plain meaning, a construction is necessary to make sure that Plaintiff does not take a position contrary to the plain meaning. *See, e.g.*, Def.'s Resp. Br. [Dkt. # 91] at 22. Plaintiff replies that Defendant's construction imports a limitation from an embodiment of the specification that does not involve or reference an "external device." *See, e.g.*, Pl.'s Reply Br. [Dkt. # 94] at 13.

Plaintiff argues that Defendant has not shown any disavowal as to this term. *Id.*

**(2) Analysis**

### The Issue

The primary issue as to this term is whether any construction is needed or does the simple

plain and ordinary meaning suffice.

### The Claims

The disputed term appears in the preambles of claims 1, 10, and 34:

[claim 1] A communications, command, control and sensing system for communi-
cating with **a plurality of external devices** comprising:

[claim 10] A handset and a base station employed in a communications, command,
control and sensing system for communicating with **a plurality of external de-
vices**, said handset and base station each comprising

[claim 34] A communications, command, control and sensing system for communi-
cating with a **plurality of external devices** comprising:

(emphasis added). Each of the independent claims has additional references to "external devices."

The claim language provides no special meaning for the term "external device."

### The Specification

The '467 Patent's abstract teaches that the microprocessor of the claimed system transmits

digital data, command/or control signals to external devices such as home appliances and remote

sensors, as well as telephone, paging and intercom systems. The specification has repeated refer-

ences to "external appliance and/or apparatuses," which appear to be the same as an external de-

vice. FIG. 1B of the patent illustrates a block diagram of the system with external devices:

As illustrated in FIG. 1b, **external appliances and/or apparatuses** may include an
intercom 2, an alarm 3, an alternating current (AC) actuator 4, a TV 5, a VCR 6, a
cable box 7, a sound system 8, a remote sensor 9, or any other RF/IR apparatus 11.
As shown, handset 10 may communicate directly to any of the external apparatuses

or directly to a base station 25. Alternately, base station 25 may communicate directly with any of the **external apparatuses** or handset 10. Further still, handset 10 may communicate to an **external apparatus** through base station 25. Finally, base station 25 may communicate through a telephone line and/or an alternating current (AC) signal power line to any other apparatus having the ability to communicate through same.

'467 Patent at 6:39–51 (emphasis added). Overall, the '467 Patent provides no special meaning to the term "external device," and the patent's use of the term is consistent with its ordinary meaning.

### The Prosecution History

Neither party substantively relies on the prosecution history in support of their positions on this term.

### Conclusion

The disputed term is a relatively simple and straightforward term. The Court finds that the "external device" term does not appear to have a meaning other than its plain and ordinary meaning. The Court also finds Defendant's construction would unnecessarily complicate the otherwise simple term.

The parties' dispute appears not directly related to what is an "external device," but instead whether it is a separate device as opposed to the "handset" and "base station." Thus, a determination on this issue would help resolve the dispute between the parties as to this term.

On balance, the Court finds that the plurality (i.e. "two or more") of external devices are separate from the previously claimed "base station" and "handset." Such a finding is supported by the claims and the specification. Accordingly, the Court construes "external device" to mean "**a device separate from the handset and the base station.**"

## V. CONCLUSION

The Court adopts the above constructions set forth in this opinion for the disputed terms of

the patent-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

**SIGNED this 3rd day of November, 2017.**

_____
ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE